

IN THE CLAIMS

1. (Currently Amended) An optically triggered interactive apparatus, comprising ~~scene-capture means~~ a scene capturer arranged to capture an image of a scene, a target selector ~~target-selection means~~ arranged to select a target area within a reference image of the scene, a detector ~~detection means~~ arranged to detect the presence of light incident within the target area of an active video image captured by the scene capturer ~~capture means~~, the detector ~~being detection means~~ is arranged to determine an outer extent of an illuminated area, illuminated by a light source, within the scene, and the detector ~~detection means~~ being arranged to output a trigger signal to a processor ~~processing means~~ when a given proportion of the target area forms part of the illuminated area and/or when a given proportion of the illuminated area lies within the target area.

2. (Canceled).

3. (Canceled).

4. (Canceled).

5. (Canceled).

6. (Currently Amended) Apparatus according to claim 1 ~~any preceding claim~~ wherein the detector ~~detection means~~ is arranged to track movement of at least one beam of light incident upon the scene.

7. (Currently Amended) Apparatus according to claim 1 ~~any preceding claim~~ wherein the detector ~~detection means~~ is arranged to monitor either, or both, of an intensity profile and/or ~~or, and,~~ a chromatic profile of a light source, incident upon the scene.

8. (Currently Amended) Apparatus according to claim 1 ~~any preceding claim~~ wherein the detector ~~detection means~~ is arranged to track a given light source, incident upon the scene based upon whether, one, or both, of the intensity profile and/or ~~or, and,~~ the chromatic profile of the light source incident upon the scene.

9. (Currently Amended) Apparatus according to claim 1 ~~any preceding claim~~ wherein the light source is arranged to be modulated.

10. (Canceled).

11. (Currently Amended) Apparatus according to claim 1 ~~any preceding claim~~ wherein the detector ~~detection means~~ is arranged to increment a counter each time a given light source passes over a given target area.

12. (Currently Amended) Apparatus according to claim 11 wherein the detector ~~detection means~~ is arranged to output a trigger signal that is dependent upon the value of the counter.

13. (Canceled).

14. (Canceled).

15. (Currently Amended) Apparatus according to claim 1 ~~any preceding claim~~ wherein the trigger signal is ~~signal are~~ transmitted wirelessly over a local area network (WLAN) to the ~~actuation means~~ actuator.

16. (Canceled).

17. (Currently Amended) Apparatus according to claim 1 ~~any preceding claim~~ comprising a plurality of image capturers ~~capture means~~, each of which are arranged to capture an active image of image the scene from different angles.

18. (Currently Amended) Apparatus according to claim 17 wherein the detector is ~~detection means are~~ arranged to receive inputs from each of ~~image capture means~~ the image capturers.

19. (Currently Amended) Apparatus according to claim 18 wherein the detector ~~detection means~~ is arranged to output a trigger signal to the actuator ~~actuation means~~ if one or more target areas is illuminated in at least one of the active images.

20. (Currently Amended) Apparatus according to claim 1 ~~any preceding claim~~ wherein the scene is a virtual scene and the reference image is a map of the virtual scene.

21. (Currently Amended) A method of optically triggering an interactive apparatus comprising the steps of:

- ~~{i}~~ defining at least one target area within a reference image of a scene;
- ~~{ii}~~ illuminating a portion of the scene with a light source;
- ~~{iii}~~ capturing an active image of the scene;
- ~~{iv}~~ determining a boundary of an area of illumination of the light source;
- ~~{v}~~ determining whether a predetermined fraction of the area of illumination illuminates at least part of a target area; and
- ~~{vi}~~ outputting a trigger signal if the light source illuminates at least a part of the target area in a predetermined manner.

22. (Canceled).

23. (Canceled).

24. (Currently Amended) The method of claim 21 ~~Claims 21 to 23~~ including identifying a light source illuminating an area of the scene by means of either an intensity profile or a chromatic profile.

25. (Canceled).

26. (Canceled).

27. (Canceled).

28. (Canceled).

29. (Canceled).

30. (Canceled).

31. (Canceled).

32. (Currently Amended) A user interface located at a user device for use in selecting a target area and a corresponding output file for an optically activated interactive apparatus comprising:

a first input ~~an input~~ mechanism for selecting an area of an image displayed upon a screen of the device as a target area;

a second input ~~an input~~ mechanism for selecting the output file corresponding to the selected target area and/or another aspect of the image, the target area and output file having a link generated therebetween; and

an output mechanism arranged to output the output file upon a trigger condition being fulfilled.

33. (Currently Amended) A user interface according to claim 32 wherein the trigger condition is an image capturer ~~capture means~~ capturing an image of the target area being at least partially illuminated by a broad beam light source.

34. (Currently Amended) A method of determining user demographic statistics, using an optically triggered interactive apparatus, comprising a scene capturer arranged to capture an image of a scene, a target selector arranged to select a target area within a reference image of the scene, a detector arranged to detect the presence of light incident within the target area of an active video image captured by the scene capturer, the detector being arranged to determine an outer extent of an illuminated area, illuminated by a light source, within the scene, and the detector being arranged to output a trigger signal to a processor when a given proportion of the target area forms part of the illuminated area and/or when a given proportion of the illuminated area lies within the target area, the method comprising the steps of:

- ~~(i)~~ providing each user with an identifiable light source;
- ~~(ii)~~ recording demographic information about each user;
- ~~(iii)~~ ~~providing an optically triggered interactive apparatus according to any one of Claims 1 to 20;~~
- ~~(iv)~~ recording each time a target area is triggered by a user; and
- ~~(v)~~ identifying each user by correlating their identifiable light source with their demographic information.

35. (Currently Amended) The method according to claim 34 including recording how long each target area is illuminated by a user's ~~users~~ light source.

36. (Canceled).

37. (Currently Amended) A method of defining a target area, for use with an apparatus in accordance ~~any one of Claims 1 to 20~~ with an optically triggered interactive apparatus, comprising a scene capturer arranged to capture an image of a scene, a target selector arranged to select a target area within a reference image of the scene, a detector arranged to detect the presence of light incident within the target area of an active video image captured by the scene capturer, the detector being arranged to determine an outer extent of an illuminated area, illuminated by a light source, within the scene, and the detector being arranged to output a trigger signal to a processor when a given proportion of the target area forms part of the illuminated area and/or when a given proportion of the illuminated area lies within the target area, within a scene comprising:

- ~~(i)~~ displaying a reference image upon a screen;
- ~~(ii)~~ selecting an area of a screen as a target area; and
- ~~(iii)~~ confirming the selection of the target area.

38. (Currently Amended) The method of claim 37 including a user manipulated device such as a keyboard, mouse, ~~trackball~~ trackball, or touchscreen to select the target area from the screen.

39. (Currently Amended) A computer readable medium having stored therein instructions for causing a processing unit to execute ~~any one of the methods of any one of Claims 20 to 38~~ a method of optically triggering an interactive apparatus comprising the steps of:

defining at least one target area within a reference image of a scene;

illuminating a portion of the scene with a light source;

capturing an active image of the scene;

determining a boundary of an area of illumination of the light source;

determining whether a predetermined fraction of the area of illumination illuminates at least part of a target area; and

outputting a trigger signal if the light source illuminates at least a part of the target area in a predetermined manner.

40. (Canceled).

Please cancel Claims 2-5, 10, 13, 14, 16, 22, 23, 25-31, 36, and 40 as indicated above without prejudice or disclaimer.